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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,443	02/07/2006	Yoshiaki Nagata	80658(47762)	5049
21874 7590 05/27/2010 EDWARDS ANGELL PALMER & DODGE LLP P.O. BOX 55874 BOSTON, MA 02205				
EXAMINER				
RIDER, LANCE W				
ART UNIT		PAPER NUMBER		
1618				
MAIL DATE		DELIVERY MODE		
05/27/2010		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Advisory Action**  
**Before the Filing of an Appeal Brief**

**Application No.**

10/567,443

**Applicant(s)**

NAGATA ET AL.

**Examiner**

LANCE RIDER

**Art Unit**

1618

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 14 May 2010 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.  
Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: \_\_\_\_\_.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

/Michael G. Hartley/  
Supervisory Patent Examiner, Art Unit 1618

Continuation of 11. does NOT place the application in condition for allowance because: Applicant argues that it would not be obvious to substitute europium for ytterbium in the dye complexes disclosed by Alburger and Tomita. Applicant alleges that Alburger teaches 783 coordination compounds and teaches that not all metals can be used with every compound, yielding a Markush of thousands of possible complexes. While Alburger does state that not every metal will form a complex with every compound, Alburger teaches only 7 different fluorescent-chelate-forming beta-diketones, 1-phenyl-1,1, 2-propanedione, 1-phenyl-1,3-butanedione (benzoyl acetone), 1,3-diphenyl-1,3-propanedione (dibenzoyl methane), 4,4,4-trifluoro-1-phenyl-1,3-butanedione, 4,4,4-trifluoro-1-(2-naphthyl)-1,3-butanedione, 4,4,4-trifluoro-1-(2-thienyl)-1,3-butanedione, and 4,4,4-trifluoro-1-(2-furyl)-1,3-butanedione. The substitution of the beta-diketones of Tomita used for forming a fluorescent complex for one of the 7 beta diketones disclosed by Alburger used for forming fluorescent complexes is an obvious substitution as all of the named compounds coordinate the metals in the same way and have the same core structure. Alburger also teaches the following 27 metals aluminum, barium, beryllium, cadmium, calcium, cerium, dysprosium, erbium, europium, gadolinium, gallium, gold, indium, lutecium, magnesium, niobium, ruthenium, samarium, scandium, strontium, terbium, thorium, vanadium, ytterbium, yttrium, zinc, and zirconium. Alburger recites all of the metals as potential equivalents, though he indeed does mention not all of them will work in every complex. Even with no further teachings taken from Alburger the markush of 7 possible beta diketones with every single of the 27 possible metals would yield a total of only 189 combinations. However, Alburger specifically teaches examples of the lanthanide europium with beta diketones functions to form fluorescent complexes. The other structurally similar metals in the list chemically similar to europium are the trivalent fluorescent lanthanide metals cerium, samarium, gadolinium, terbium, dysprosium, erbium, lutecium, and ytterbium. Leaving 7 structurally similar lanthanide metals to replace europium with. This would yield a markush of 7 beta diketones and 8 metals, or 56 possible compounds. As the method of forming the complexes is merely the mixing the compounds and metals together, there is no significant unpredictability seen in forming any of these 56 complexes. It is still deemed obvious to substitute the lanthanide ytterbium for the structurally similar lanthanide europium in order to obtain a similar fluorescent complex. Further even if applicant contends that the skilled artisan would not substitute structurally similar compounds for one another in such complexes, the markush taught by Alburger contains a total of 183 compounds. Even disregarding the structural similarities of europium and ytterbium it is still considered obvious to select the metal ytterbium from the finite number of identified, predictable solutions, with a reasonable expectation of success.